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There are no offlying banks or shoals to break the force of the ocean swell before it rolls on to the shelving beach. An attempt to land valuable instruments and heavy stores on such an exposed and open beach could scarcely be recommended. The possibility of occupying Wollal as a station for observing the eclipse appears to depend on the value of the information regarding the creek for landing, on the authority of Professor Ross and Mr. Thomson. This creek is not shown on the Admiralty chart, nor is there any information about it in the sailing directions.

Before seriously considering Wollal, it would be desirable to know a good deal more about the creek and the approach to it than we do at present.

It is understood that naval assistance on the Australian station should now be sought from the Australian Government, and not from the Admiralty, as in past times.

Observations of Saturn at the Radcliffe Observatory, Oxford, on 1921 February 21 and 22. By Dr. A. A. Rambaut, M.A., F.R.S., Radcliffe Observer.

The following observations were made with the 18-inch guiding telescope of the photographic refractor (power 290) during the passage of the earth through the plane of the ring-system of Saturn on February 21 and 22.

Feb. 21, $9^h\ 30^m$–12^h *G.M.T.*—Examined Saturn for a considerable time to-night, but at first the definition was too poor, the images being diffused. Towards midnight, however, details on the surface of the planet showed up at intervals, when a broad white belt south, and a narrower one north, of the dark equatorial line of shadow, with many other parallel markings, were distinctly seen: the dark line was not black, but resembled in tint the other dark markings. Titan and Dione on the western side of the planet, and Tethys, Rhea, and Iapetus on the eastern, were identified with ease, but we could not discover any trace of the ansæ. This rare phenomenon—Saturn without rings—presented an interesting spectacle. Bright moonlight and slight mist undoubtedly veiled the feeblest details, but any object say two magnitudes below Tethys, the faintest of the observed satellites, would have been visible (R. and H.B.). Hyperion, although not seen with certainty, was occasionally suspected (R.).

Feb. 22, $8^h\ 38^m$–$9^h\ 0^m$ *G.M.T.*—From the data published in the *Nautical Almanac* it was ascertained that the earth would pass to the sun-lit side of the ring-plane of Saturn at about 8^h G.M.T. this evening. Thirty-eight minutes after this time the 18-inch was again set on the planet, and at once an exceedingly fine streak of light on either side of it could be seen. Both ansæ had been quite invisible to us only 20 hours previously. The

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eastern ansa was rather more distinctly seen than the western, which thinned off towards its extremity. Dione was visible travelling along the western ansa in the direction of the planet, whilst Rhea shone up at the end of the eastern (R. and H.B.). The equatorial dark line across the planet was similar to that observed last night, and the parallel bands on the disc were fairly well defined (R.). Each ansa extends to a distance from the limb of the planet equal to about 0·7 of its diameter (H.B.).

Feb. 22, $9^h\ 30^m$–$10^h\ 30^m$ *G.M.T.*—The ring (seen as a thin white line) could be easily traced on the following side to Rhea, situated 0·7 diameter of planet away from the limb of ball. At times the ring seemed to extend a little beyond this satellite. On the preceding side the ring was not so bright, but was held steadily for a considerable distance out from ball (A.A.R. and B.).

Observers.—Dr. Rambaut (A.A.R.); Mr. Robinson (R.); Mr. Barrett (H.B.); and Mr. Balk (B.).

Radcliffe Observatory, Oxford:
1921 *March* 9.

A New Variable Star in Perseus. By A. Stanley Williams.

B.D. +44° 994 (8·6 mag.).

R.A. = $4^h\ 26^m\ 05^s$, Decl. = +44° 40′·2 (1855).

This star does not seem to have been hitherto recognised as a variable. Its variability was first noticed by the writer about fifteen years ago, when comparing two photographs taken with a 4·4-inch portrait lens. Visual observations were made last year with a 6½-inch reflector in order to determine, if possible, the nature and period of variation. From these it appears that the variation is of a somewhat remarkable character. Shortly, the star may be said to be a Cepheid variable of the most extreme type, in which the rise from near minimum to maximum takes place in about an hour, and the decline is at first only a little less quick to near the minimum brightness. But, contrary to the example of these Cepheid variables in general, there is apparently no regular or uniform period at all, whilst the minima may be sometimes most abnormally prolonged.

In 1920, 263 observations were made on 67 nights. There is also a single observation in 1918, made at a time when the star must have been at or near a maximum. In order to save space, those observations only are given here (in Table II.) which are capable of furnishing a good determination of the time of maximum.

Table I. contains the light-scale and adopted magnitudes of the comparison stars. The difference in brightness between stars A and C is too great for satisfactory direct estimation, and the

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